DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

December 22, 1997

By Hand Delivery

Ms. Magalie R. Salas, Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

Re: *In the Matter of The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010*, WT Docket No. 96-86 (rel. October 24, 1994).

Dear Ms. Salas:

Enclosed for filing in the above-referenced proceeding is an original and (11) copies of the Comments of the Federal Law Enforcement Wireless Users Group regarding the implementation of public safety communications as mandated by the Balanced Budget Act of 1997, Pub. L. No. 105-33, 111 Stat. 251 (1997) (codified at 47 U.S.C. § 337), and an accompanying Certificate of Service.

An additional copy of comments is enclosed to be stamped "received" and returned.

Thank you very much for your attention to this matter.

Sincerely,

James J. Flyzik

James J. Flyzik

Deputy Assistant Secretary (Information Systems) and
Chief Information Officer, Department of the Treasury, and
Vice Chair, Government Information Technology Services (GITS) Board

Enclosure

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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
The Development of Operational, Technical,	)	
and Spectrum Requirements for Meeting Federal,	)	**WT Docket No. 96-86**
State, and Local Public Safety Agency Communication	)	
Requirements Through the Year 2010	)	
	)	
Establishment of Rules and Requirements	)	
For Priority Access Service	)	

COMMENTS OF THE FEDERAL LAW ENFORCEMENT WIRELESS USERS GROUP (FLEWUG)

December 22, 1997

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EXECUTIVE SUMMARY

The Federal Law Enforcement Wireless Users Group (FLEWUG) consists of law enforcement and public safety officials from throughout the Federal Government. An important aspect of the FLEWUG's mission is to develop a plan for a future, intergovernmental, shared use, public safety wireless communications network that would allow public safety agencies to respond effectively to emergency situations and to provide public safety services in a more integrated fashion. The FLEWUG has developed a management plan that defines the goals, objectives, and actions required to develop the network, and is implementing its plan through the Public Safety Wireless Network (PSWN) program. Accordingly, any development affecting public safety communications, particularly interoperability, is of interest to the FLEWUG. As an integral segment of the public safety community and an organization working to promote interoperability among all public safety officials, the FLEWUG is providing the written comments herein to ensure that the viewpoints of federal law enforcement and public safety users of spectrum are well represented.

The FLEWUG believes that citizens have a legitimate expectation that when their life, liberty, or property is in danger, public safety will respond. The effectiveness of federal, state, and local public safety agencies are tied to their ability to communicate with each other in a crisis situation, such as the World Trade Center and Oklahoma City bombings. The role of federal agencies particularly in these situations was essential to the emergency response efforts. The FLEWUG strongly advocates that federal agencies be included in the definition of public safety and public safety service providers. We believe that the exclusion by the Commission of federal agencies from this definition of public safety service providers in the NPRM stems from a misinterpretation of the intent of the Congressional definition established in the Balanced Budget Act of 1997 that pertains to the 746-806 MHz band. It is important to note and reaffirm that federal public safety entities are integral members of the public safety community and that the definition of public safety services (including federal public safety entities) should remain as stated in the Public Safety Wireless Advisory Committee (PSWAC) Final Report. FLEWUG urges the FCC to adopt the PSWAC definition of public safety services and to base any broad definition of public safety service provider on the PSWAC definition.

The FLEWUG's comments herein also focus on rules for the management and use of the interoperability spectrum, rules for the management and use of the general use spectrum, and federal inclusion in the planning process for these portions of spectrum. The comments are based on the premise that in order to achieve true communications interoperability among public safety agencies, the inclusion of the Federal Government in both the planning and use of the proposed 24 MHz of spectrum is essential. The FLEWUG agrees with the FCC's proposal to separate the spectrum under consideration into two distinct categories: a portion to promote interoperability between federal, state, and local jurisdictions, and the other dedicated to accommodate regional public safety

demands. Each addresses specific needs of the public safety community. However, as the planning and management schemes adopted for one category affect the other, the FLEWUG is concerned with rules governing the allocation, assignment, and use of both types of spectrum.

The FLEWUG's interest is primarily in the interoperability spectrum. This interest stems from the need for federal public safety officials to communicate with state and local agencies during events requiring multi-jurisdictional interoperability. Interoperability requirements among federal, state, and local public safety agencies span a range of operational conditions, from mutual aid during emergency situations to more regular needs, such as those related to task force and day-to-day operations. The FLEWUG is therefore interested in the development of rules governing the Interoperability spectrum that afford the appropriate levels of flexibility for accommodating interoperability requirements. The FLEWUG believes that, in order to achieve the primary goal of seamless interoperability, a national interoperability coordination body be established. The FLEWUG proposes that this national interoperability coordination body develop a national interoperability plan that would provide the rules and regulations governing the use of the interoperability spectrum nationwide. Once the national interoperability coordination body approves the plan, it would release the plan to the regional committees accompanied by a schedule for its implementation. The national interoperability coordination body would then oversee and audit the implementation of this plan and provide guidance and general aid to any region needing such assistance in meeting the plan's requirements within the scheduled timeframe. Moreover, the FLEWUG advocates rules that grant federal agencies the ability to license frequencies in the interoperability spectrum.

The FLEWUG also believes that, at a minimum, 2.5 MHz of spectrum is needed for interoperable communications in the 746-806 MHz band. Additionally, the FLEWUG proposes 2.5 MHz of interoperability spectrum spread throughout the other existing public safety bands (i.e., the FLEWUG calls for an additional 2.5 MHz of interoperability spectrum below 512 MHz). Moreover, the FLEWUG realizes that certain channels would have to be cleared to provide room for additional interoperability spectrum to be located adjacent to existing public safety bands below 512 MHz. Thus, the FLEWUG recommends several sets of frequencies that could be managed in a fashion to provide additional spectrum for interoperability. The first is the 138-144 MHz band used primarily by the Department of Defense at the current time. Portions of this band could be shared with public safety through effective coordination between the National Telecommunications and Information Administration (NTIA) and the FCC. However, care must be taken to ensure such sharing does not impede the Department of Defense's ability to meets its mission. A second potential band is the 174-216 MHz band currently occupied by VHF television. Since adjacent VHF TV channels are never used in a particular area, either odd (7, 9, 11, 13) or even (8, 10, 12) channels are available everywhere and could be shared with public safety. Finally, expanded sharing of the television spectrum between 470-512 MHz could allow for more interoperability spectrum.

Moreover, the FLEWUG fully realizes the potential benefits that groupings of communication types may have on improving the interoperability of radio communications. Using established categories, radio communications may be grouped in order to maximize spectrum efficiency. The FLEWUG agrees with the Commission that four general categories (voice, data, image/high speed data (image/HSD), and video) encompass the wide variety of public safety transmissions and is satisfied with the Commission's conclusion. The FLEWUG believes, however, that it is premature at this time for the Commission to make allotments of Interoperability spectrum for each identified type of communications.

The FLEWUG is also interested in the rules governing the assignment and use of the general use spectrum. This interest stems from the desire to support regulatory provisions, or changes to current processes, that would allow federal agencies to use these channels in a shared system environment. Under such circumstances, the federal agencies would be full partners in the development and operation of the shared system. The FLEWUG seeks to promote, where applicable, shared systems that support federal, state, and local public safety communications. These partnerships enable effective use of public safety resources, such as system infrastructure, subscriber units, system maintenance, and frequency spectrum. Although FLEWUG supports partnerships on these systems, the FLEWUG does not advocate direct licensing of the General use spectrum in the 746-806 MHz band to federal agencies.

In support of this objective, the FLEWUG advocates that the regional planning process as proposed in the national plan developed under the National Public Safety Planning Advisory Committee (NPSPAC) process must be modified in order to provide a more effective and efficient means of assigning and regulating the general use spectrum. We believe that a national general use coordination body should be designated as the overall governor of the regional planning process. This body would be given review, approval, and audit authority over the process. By creating such a body, the FLEWUG believes that some of the limitations of the regional planning process can be rectified. Due to the number of regional committees and the potentially heavy workload of the proposed national general use coordination body, the FLEWUG recommends the creation of six to eight "super-regions" to aid this body with its oversight and management functions. Each of these "super-regions" would consist of seven to ten adjacent NPSPAC regions with no state divided between "super-regions." "Super-region" coordination committees would be established as a part of the national general use coordination body. By developing such a hierarchical process, the FLEWUG believes that a better and more timely aid will be provided to regional committees in the development of their regional plans than has been provided previously.

The FLEWUG believes that the national interoperability coordination body mentioned previously and the national general use coordination body mentioned in the above paragraph should coordinate and integrate their respective efforts with each other. Such coordination and integration is necessary to ensure that interoperability plans and general use plans are mutually supportive and consistent. The two bodies should

establish a standing working group that meets regularly to ensure adequate coordination and integration.

The FLEWUG believes it is important for us to emphasize the primary distinction between our positions on the interoperability spectrum and the general use spectrum as they pertain to the use of these portions of spectrum by federal agencies. All public safety agencies, irrespective of their level of government, have clear requirements for interoperable communications and therefore require licenses for interoperability frequencies. The FLEWUG believes such a distribution of licenses permits a situation where there is equal access to all interoperable frequencies. Therefore, the FLEWUG requests that federal agencies be allowed to license frequencies in the interoperability spectrum.

With respect to the general use spectrum, it is important to note that the FLEWUG is not interested in obtaining this spectrum strictly for federal use or to support federal-only systems. Rather, the FLEWUG advocates partnerships with state and local agencies on shared systems where applicable. Under this formulation, federal use of the general use spectrum would only take place where federal agencies are partners on shared systems with state and local public safety agencies. For these reasons, the FLEWUG does not call for federal licensing of the general use spectrum. The general use spectrum licenses used for shared federal, state, and local systems should be held by the participating state and local agencies.

I. INTRODUCTION

1. The Federal Law Enforcement Wireless Users Group[1] (FLEWUG) respectfully submits the following comments in the above referenced proceeding.[2] The foundation of the FLEWUG's comments rest on its belief that citizens have a legitimate expectation that when their life, liberty, or property is in danger, public safety will respond. The effectiveness of public safety agencies is tied to their ability to communicate. Increasingly, we have seen the need for multiple levels of public safety agencies to respond to crises, as demonstrated by the World Trade Center bombing in 1993 and in Oklahoma City in 1995. The role of federal agencies in those situations was essential to emergency response efforts. The FLEWUG applauds the FCC for recognizing the national importance of public safety communications and for bringing the issue to the forefront. Implementation of this ruling will bring public safety communication capabilities into the 21st century and will allow public safety agencies to perform their jobs more effectively.

II. BACKGROUND

2. In 1993, the Office of the Vice President issued a National Performance Review (NPR) report[3] recognizing the need to improve public safety communications capabilities. This need was reiterated in A06 of the 1997 follow-on report, *Access America*[4]. Both reports highlight the need to address key challenges, such as competition for limited radio spectrum, limited public safety budgets, and the need to keep pace with advances in technology. The NPR recognized that if public safety agencies coordinated their efforts in developing future systems, they could conquer these challenges, greatly enhance their abilities to fight the war on crime, and relieve the effects of diminishing resources, such as funding and radio spectrum. The NPR, and a subsequent Memorandum of Understanding between the Department of Justice and the Department of the Treasury, formally established the FLEWUG. A key aspect of the FLEWUG's

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[1] The FLEWUG consists of law enforcement and public safety officials from the Department of the Treasury, Department of Justice, Department of the Interior, Department of Agriculture, some elements of the Department of Defense, Department of Health and Human Services, United States Postal Service, United States Postal Inspectors Service, National Telecommunications and Information Administration, Federal Emergency Management Agency, Internal Revenue Service, Federal Bureau of Investigation, United States Secret Service, United States Coast Guard, United States Capitol Police, Drug Enforcement Administration, United States Park Police, Immigration and Naturalization Service, United States Customs Service, Bureau of Alcohol, Tobacco, and Firearms, United States Mint, National Communications System, Defense Information Systems Agency, National Security Agency, Federal Law Enforcement Training Center, Bureau of Engraving and Printing, United States Marshals Service, National Institute of Standards and Technology, United States Forest Service, United States Fish and Wildlife Service, and Federal Bureau of Prisons.

[2] *In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agencies Communication Requirements Through the Year 2010*, Notice of Proposed Rulemaking, WT Docket No. 96-86, released October 24, 1997 (referred to here as the "Public Safety NPRM").

[3] *Establish a National Law Enforcement/Public Safety Network*, National Performance Review Information Technology Initiative 04, September 1993.

[4] *Establish the Intergovernmental Wireless Public Safety Network*, National Performance Review, Access America 06.

mission is to plan and coordinate future shared-used wireless telecommunications systems and resources. The membership of the FLEWUG consists of federal law enforcement and public safety officials. In addition, the FLEWUG sponsors the Public Safety Wireless Network (PSWN) program, which has a broader charter concerned with interoperability of public safety wireless communications systems among federal, state, and local public safety officials.

3. The PSWN initiative represents the first time that agencies have been commissioned to resolve the long-standing issues of communication interoperability and tactical radio coverage. In further directing the development of an integrated, public safety wireless network that meets the functional requirements of the user community, A06 reaffirmed both the original NPR report and the vision for an integrated PSWN. A06 defines five actions:

- Improve coordination of public safety wireless communications;
- Provide adequate radio frequency spectrum for public agencies;
- Support the development of technical standards for public safety wireless communication systems;
- Include security in all public safety land mobile radio systems; and
- Establish an alternative funding mechanism for federal, state, and local public safety officials to improve their wireless communication systems.

4. Congress, in the Omnibus Budget Reconciliation Act of 1993[5], took a new approach to meeting private and public sector needs. In this legislation, the FCC was authorized to use spectrum auctions for wireless commercial use.[6] The legislation also required the FCC to complete a study by February 9, 1995 of the current and future spectrum needs of state and local public safety agencies through the year 2010, and develop a specific plan to ensure that adequate frequencies are made available to public safety licensees. On February 9, 1995, the FCC submitted to Congress a *Report and Plan, Meeting State and Local Government Public Safety Agency Spectrum Needs Through the Year 2010.*[7] The report did not contain specific conclusions, but indicated that further study was necessary. In June 1995, the FCC and the National Telecommunications and Information Administration (NTIA) established the Public Safety Wireless Advisory Committee (PSWAC) to study current and future spectrum needs of public safety agencies through the year 2010, and to make recommendations for meeting these needs.[8] Over 480 individuals representing the general public, public

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[5] Omnibus Budget Reconciliation Act of 1993, Pub. L No. 103-66, Title VI, Section 6002, 107 Stat. 312 (1993).

[6] 47 U.S.C, .Section 309(j)(10)(B)(iv).

[7] *Report and Plan for Meeting State and Local Government Public Safety Agency Spectrum Needs Through the Year 2010, Report and Plan,* 10 FCC Rcd 5207 (1995) (*1995 FCC Public Safety Report*).

[8] Letter from Larry Irving, Assistant Secretary of Commerce to the Honorable Harold Rogers (Apr. 14, 1995) (reprinted in *Hearings* at 417-19).

safety service providers, the equipment manufacturers, communications service providers, and other vendors participated in the work of PSWAC and its subcommittees. The output of PSWAC's detailed study of public safety communications requirements was the PSWAC Final Report[9].

5. PSWAC found that the radio systems currently being used by public safety agencies are laboring under increasing burdens. Radio systems are becoming out-dated and overloaded, while different technologies are impeding interoperability at a time when funding for new equipment is often scarce. As a result, public safety assistance can be delayed and response efforts can be inefficient, which ultimately jeopardizes lives. Although technical advances are bringing new services, such as data and image/video applications that could enhance the public safety community's ability to fulfill its mission, the limited radio spectrum allocated to public safety users make the new services difficult to implement.

6. To address these problems, the PSWAC Final Report made recommendations on the amount of spectrum relief needed by public safety agencies in the short and long term, and acknowledged the need for spectrum to be designated solely to nationwide interoperability among all public safety agencies. Among PSWAC's specific recommendations are—

- The designation of 2.5 MHz of spectrum in new and in existing public safety frequency bands for interoperability.

- In the short term, 25 MHz of spectrum is needed to meet current public safety spectrum needs.

- By the year 2010, it is expected that an additional 70 MHz will be necessary to support emerging data, imagery, and video applications for public safety communications.

- The development of a flexible regulatory environment that encourages the development of shared system infrastructures supporting public safety communications[10].

The FLEWUG supports these recommendations and uses the PSWAC Final Report as a foundation for defining public safety communications needs in our comments to this NPRM.

7. In addition to the PSWAC Final Report, the FLEWUG has obtained supporting information from their involvement in the PSWN program. The PSWN, in efforts to develop an interoperable network, is studying issues relating to the use of spectrum by the public safety community.

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9 "*Public Safety Wireless Advisory Committee Final Report*, Volume 1", Public Safety Wireless Advisory Committee, (September 11, 1996) (PSWAC Final Report).

10 *Id.* at 21-24.

8. Effective, reliable communication is critical to the mission of public safety agencies. The FLEWUG, through our support of the PSWAC Final Report, our involvement with the PSWN program, and our comments to this NPRM, is seeking to promote the development of rules that enable and encourage effective communications.

III. COMMENTS

A. INTEROPERABILITY SERVICE RULES

1. Location and Amount of Spectrum

9. The FLEWUG agrees with the FCC's assessment that nationwide interoperability channels are necessary and are in the public interest. The FLEWUG fully supports the identification of some interoperability channels in the 746-806 MHz band. The FLEWUG recognizes that public safety agencies are currently located in four frequency bands with the potential expansion into a fifth: low-band VHF (25-50 MHz), high-band VHF (138-144 MHz, 150-174 MHz), low-band UHF (406.1-512 MHz), 800 MHz (806-824/851-869 MHz), as well as in the proposed 746-806 MHz band. The FLEWUG believes that placing all interoperable spectrum in the newly allocated frequency band would not necessarily enhance interoperability. Therefore the FLEWUG determines that interoperable spectrum would best serve public safety if divided among all of the current and future operating bands for public safety. This spectrum should be adjacent to, or included in, existing public safety bands and should, to the maximum extent practicable, provide contiguous groups of channels dedicated to interoperability.

10. The FLEWUG believes that, in addition to the interoperability spectrum set aside in the proposed 746-806 MHz band, additional spectrum is needed below 512 MHz for interoperable communications. Therefore, the FLEWUG recommends that 2.5 MHz be set aside for interoperability purposes in the 746-806 MHz band and an additional 2.5 MHz of interoperability spectrum be made available below 512 MHz. The FLEWUG's rationale stems from the findings in the PSWAC Final Report. The FLEWUG believes 2.5 MHz below 512 MHz and 2.5 MHz in the 746-806 MHz band are necessary since the nation's public safety agencies are called upon increasingly to respond jointly to new and varied domestic threats.

11. In further response to paragraph 45 of the NPRM, the FLEWUG realizes that, irrespective of the frequency band, certain channels would have to be cleared to provide room for additional interoperability spectrum to be located adjacent to existing public safety bands. Based upon the findings contained in the PSWAC Final Report, the FLEWUG recommends several sets of frequencies that could be managed in a fashion to provide additional spectrum for interoperability. The first is the 138-144 MHz band used primarily by the Department of Defense at the current time. Portions of this band could be shared with public safety through effective coordination between the NTIA and the FCC. However, care must be taken to ensure such sharing does not impede the

Department of Defense's ability to meets its mission. A second potential band is the 174-216 MHz band currently occupied by VHF television. Since adjacent VHF TV channels are never used in a particular area, either odd (7, 9, 11, 13) or even (8, 10, 12) channels are available everywhere and could be shared with public safety. Finally, expanded sharing of the television spectrum between 470-512 MHz frequencies could allow for more interoperability spectrum. Currently these frequencies are shared in 11 cities between public safety and TV broadcasters. Similar such arrangements could be made in other cities and localities.

12. The FCC also requests comments regarding how interoperability can be achieved across a variety of public safety bands. The FLEWUG believes that interoperability within each public safety frequency band will best occur on the designated interoperability channels. For example, interoperability among users of low-band VHF systems will best be enabled through the engineering and use of low-band VHF interoperability channels. Furthermore, the FLEWUG recommends the use of cross-band patching or other multi-band technology to achieve interoperability between agencies operating in different frequency bands. Rules governing the use of interoperability spectrum, irrespective of their band, should facilitate implementation of such an architecture.

2. Types of Communication

13. The FLEWUG realizes the potential benefits that groupings of communication types may have on improving the interoperability of radio communications. Using established categories, radio communications may be grouped in order to maximize spectrum efficiency. In paragraph 46, the Commission seeks comment on the categorization of public safety communications into four types: voice, data, image/high speed data (image/HSD), and video. The FLEWUG agrees that these four general categories encompass the wide variety of public safety transmissions and is satisfied with the Commission's conclusion.

14. In paragraph 51, the Commission seeks comment on the proposal to make available and to allocate spectrum for the four general types of communication. Public safety communication is accomplished through each type of communication listed above. The FLEWUG believes that in order to achieve communications among public safety agencies, the interoperability spectrum should accommodate each type of communication. For this reason, the FLEWUG supports the Commission's proposal to make spectrum available for the four general types of interoperable communications. The FLEWUG believes, however, that it is premature at this time for the Commission to make allotments of interoperability spectrum for each identified type of communications. The FLEWUG believes that the designation of specific amounts of interoperable spectrum for each type of communications should be the responsibility of the organization established to plan and manage the interoperability spectrum.

3. Transmission Technology

15. In paragraph 56 of the NPRM, the FCC requests comment on whether analog or digital modulation for voice interoperability channels should be specified. The FLEWUG believes that the advances and potentials in digital modulation technologies in land mobile radio applications far surpass the future potential of analog technology. Therefore, digital modulation on voice channels should be required as technologies evolve. Because of incompatibilities between analog and digital systems, a date certain must be mandated to allow for smooth transition to digital technologies.

16. Further comment is sought regarding whether standards on interoperability channels–analog or digital–should be adopted. The FLEWUG considers the development and adoption of digital standards for these channels as essential to future interoperability because efficient and affordable use of spectrum is dependent on well developed and widely deployed standards. The FLEWUG agrees with the PSWAC Final Report that digital standards for interoperability should be developed within 2 years through an open and fair process to allow for migration to digital technology.

17. In paragraph 60 of the NPRM, the inquiry shifts to whether the FCC should mandate the use of digital modulation for data, image/high speed data (HSD), and video interoperability channels. The FLEWUG observes that digital modulation is the direction in which commercial providers are proceeding in most wireless data applications. Failing to keep pace with this movement places the public safety sector out of step with industry's cadence and puts them in a disadvantaged position from which to capitalize on commercial products. Therefore, the FLEWUG agrees with the FCC's proposal to adopt the use of digital modulation to benefit from the throughput advantages of digital technology and to stay current with technological advances in equipment.

18. As a related matter, comment is sought on whether technical standards should be mandated for data, image/HSD, or video equipment on interoperability channels. We consider open technical standards for image, data/HSD, and video as a desired requirement. The adoption of open standards, such as those developed by the ITU, would avoid duplicating standards development efforts and would encourage competition between multiple vendors in the public safety LMR market.

4. Channel Spacing

19. The FLEWUG supports the development of channel spacing specifications for the interoperability spectrum that are consistent with the bandwidth, types of communication, and technology to be supported by this spectrum.

5. Channel Requirements

20. The FLEWUG proposes that a national entity be established to oversee the coordination and planning for the interoperability channel requirements. Without

national coordination, different technical specifications may evolve for use of these channels, which would hamper the goal of interoperability. The national entity should be structured to ensure uniformity in specifications for channel spacing and channel requirements. This entity could be the national interoperability coordination body defined in paragraph 27 below.

6. Equipment Standards

21. Receiver performance standards for interoperability channels should be mandatory. These standards should be determined by a date certain to provide some level of consistency. To ensure the quality of public safety radio receivers, the FLEWUG recommends extending the basic receiver selectivity requirement for the 821-824/866-869 MHz public safety band into the 746-806 MHz band. The Federal Government and industry associations, such as the TIA, have long recognized and endorsed the need for receiver performance standards. These standards should be set in a fashion consistent with existing NTIA and TIA performance standards.

22. The PSWAC Interoperability Subcommittee (ISC) specifically recommends "that dedicated emergency radios be encouraged for agencies not owning frequency synthesized analog radios."[11] In general, the FLEWUG does not support the use of separate interoperability radios in the 746-806 MHz band. However, the FLEWUG understands those issues set forth in the PSWAC White Paper and thus supports the use of separate radios only as a potentially low-cost, interim solution to interoperability for agencies that do not operate in the 746-806 MHz band.

7. Definitions

23. The Commission's NPRM accurately cites the definition of public safety services as provided in Section 337 (f)(1) of the Communications Act of 1934[12], as amended by the Balanced Budget Act of 1997, § 3004[13]. The FLEWUG believes that the definition of public safety services (excluding federal public safety entities) in the statute was purposely limited to address the eligibility for licensing and assignment of spectrum between 746 and 806 MHz only.[14] The FLEWUG believes that the definition as provided in the statute was not intended as the basis for an overly limited definition of public safety service providers. It is important to note and reaffirm that federal public safety entities are integral members of the public safety community and the definition of public safety services (including federal public safety entities) should remain as stated in the PSWAC Final Report. The FLEWUG fully endorses and urges the FCC to adopt the PSWAC definition of public safety services and to base any broad definition of public safety service provider on this PSWAC definition.

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[11] PSWAC Final Report, Appendix D, Attachment 7, p. 560.

[12] 47 U.S.C. § 337(f)(1).

[13] Balanced Budget Act of 1997, § 3004

[14] See paragraph 36 of these comments where the FLEWUG advocates licensing of interoperability spectrum from the 746-806 MHz band to federal, state, and local public safety agencies. Despite the definition stated in the Balanced Budget Act, the FLEWUG believes that the ability of federal agencies to license frequencies in the interoperability spectrum is essential for intergovernmental interoperability.

24. Likewise, the definition of public safety service provider as proposed by the Commission[15] may be "... helpful in developing service rules for the 746-806 MHz band" but is too limiting to be considered as an overall prevailing definition. Again, the FLEWUG believes that the Commission has misconstrued the congressional definition of public safety services in section 337 (f)(1) of the Communications Act[16]. The FLEWUG believes that Congress is delineating eligibility for licensing and assignment for the 746-806 MHz spectrum; Congress is not redefining the term public safety services. The FLEWUG advocates that the Commission's final rules should be changed to clearly identify federal public safety entities as public safety service providers.

8. National and Regional Planning

25. The FLEWUG agrees with the Commission's assessment that "adequate planning for inter-communication may be as important as providing sufficient spectrum for the channels." Thus, the FLEWUG applauds the efforts of the Commission to solicit comments from the public safety community in developing the necessary planning and management processes. However, in developing a planning and management scheme with regard to the interoperability spectrum, we feel that it is very important not to lose sight of the primary goal of this allocation: "seamless interoperability on a nationwide basis."[17] Considering this goal, the FLEWUG presents its comments with regard to the planning and management process to be used to assign frequencies within the interoperability spectrum.

26. The FLEWUG disagrees with the Commission's suggestion in paragraph 78 to use the NPSPAC regional planning process to manage the assignment of the interoperable channels in the 746-806 MHz band. The FLEWUG believes that the NPSPAC regional planning process did not fully accomplish one of the primary goals set forth in the NPSPAC national plan which was "to facilitate interoperability between communications systems to permit local, state, and federal agencies to coordinate their activities." The FLEWUG suggests several reasons for the inability of the NPSPAC process to fully achieve its goals. The first is attributed to a lack of oversight. Such oversight could have occurred using a national review committee as recommended in the NPSPAC Final Report. Despite the Commission's statement of support for the formation of the national review committee, it was never formed. As stated in the NPSPAC Report, the intended purpose of the national review committee was to ensure that the primary goals of the NPSPAC national plan were achieved in a timely manner. Without the guidance of a national committee, local and intra-agency concerns for interoperability overshadowed the concerns of nationwide interoperability. The sometimes parochial nature of the regional planning committees also limited the ability of the NPSPAC process to achieve the Commission's goals. Typically, membership in these committees has been dominated by law enforcement agencies from large metropolitan jurisdictions. The lack of participation by a more representative array of public safety officials from a

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[15] Public Safety NPRM at 75.

[16] 47 U.S.C. § 337(f)(1), as amended by the Balanced Budget Act of 1997, § 3004.

[17] Public Safety NPRM at 78.

more diverse set of jurisdictions in the regional planning committees is due in part to another operational limitation of the NPSPAC process, namely, the lack of funding. Most small public safety agencies consisting of less than 25 members did not have adequate funding to either participate in the Committee meetings or to design and develop new 800 MHz systems.

27. The FLEWUG believes that in order to achieve the primary goal of seamless interoperability nationwide the aforementioned limitations of the NPSPAC process must be addressed. The FLEWUG suggests that some form of national interoperability coordination body be established or designated as was recommended in the NPSPAC Final Report. The FLEWUG proposes that this national interoperability coordination body develop a national interoperability plan that would provide the rules and regulations governing the use of the interoperability spectrum nationwide. The plan should be developed based on comments provided by each of the existing 55 Regional Committees as well as comments provided by other interested parties such as the FLEWUG. Once the national interoperability coordination body approved the plan, it shall release the plan to the regional committees accompanied by a schedule for its implementation. The national interoperability coordination body would then oversee and audit the implementation of this plan and provide guidance and general aid to any region needing such assistance in meeting the plan's requirements within the scheduled timeframe.

28. The FLEWUG believes that it is imperative to develop a common national interoperability plan that provides strict guidelines as to the usage of the interoperability spectrum. This national interoperability coordination body would resemble the proposed planning and management scheme outlined in Option 4 as stated in the NPRM paragraph 82. The FLEWUG believes that this option provides a framework more conducive to achieving the primary goal than do Options 1, 2, and 3 as offered in the NPRM. We agree that Options 1, 2, and 3 propose flexible planning and management processes in determining the use of the interoperability spectrum at the regional level but we feel that this flexibility will undermine the primary goal of the interoperability spectrum. The FLEWUG believes that this flexibility should be allowed in the management of the general use spectrum but not for the management of interoperability spectrum at the national level.

9. Categories of Interoperability Uses

29. The FLEWUG agrees with the assertion made in paragraph 83 and the FCC's division of public safety interoperability into three contexts: day-to-day, mutual aid, and emergency preparedness/task force. These definitions are consistent with the findings in the PSWAC Final Report. However, the FLEWUG feels that it is premature for the FCC to provide specific amounts of spectrum for each of these categories of interoperability use. Therefore, it is the FLEWUG's opinion that the amount of spectrum dedicated to each of these categories be left open at this time and decided by the previously discussed national interoperability coordination body. Furthermore, the FLEWUG believes that the type of service available for each category of use be flexible and also be decided upon by such an entity.

30. The FLEWUG also agrees with the initial steps that the FCC has proposed for all interoperability channels, regardless of service, to be shifted to mutual aid channels in the time of emergency. The FLEWUG suggests that while this is a critical step, a process should be established to allow sufficient flexibility for these channels to be shifted to day-to-day operations or task force operations on an as needed basis. The FLEWUG believes that this flexibility should be managed by the aforementioned national interoperability coordination body.

31. In response to paragraph 84, the FLEWUG agrees with the assessment that public safety should be represented in discussions involving the number and kinds of channels used for interoperability. As discussed earlier, the FLEWUG feels this process would best be handled by a national interoperability coordination body. The FLEWUG feels that if this process were handled at a regional level there would be ineffective coordination between regions and nationwide interoperability would continue to be hindered.

32. The FLEWUG agrees with the FCC's view that there should be a minimum number of channels designated to interoperability. As stated earlier, the FLEWUG, consistent with the PSWAC recommendations, recommends at least 2.5 MHz of channels for interoperability use in the 746-806 MHz band and at least an additional 2.5 MHz of channels for interoperability use in public safety bands below 512 MHz.

10. Eligibility and Use of Interoperability Channels

33. The FCC seeks comments regarding which entities should be eligible to use each of the proposed interoperability channels. The FLEWUG agrees with the PSWAC Interoperability Subcommittee (ISC), which states that interoperability among federal, state, and local public safety agencies is essential for the protection of life and property. The FLEWUG also agrees that some emergencies require interoperability with government entities and non-governmental organizations whose primary mission is not public safety, such as railroads and organizations that transport petroleum products. The nine categories[18] identified in the PSWAC ISC all require interoperable communications at some level. Therefore, entities within each of the nine categories should be eligible to use the interoperability channels. A national interoperability coordination body, as described previously as being responsible for developing a national interoperability plan, should develop rules and regulations governing the eligibility and use of the interoperability spectrum nationwide.

34. Throughout the *Eligibility and Use of Interoperability Channels* section of the NPRM, (para. 88, 90, 91, and 93) the FCC expresses concern that Federal use of the 746 to 806 MHz spectrum may not be "...consistent with congressional objectives in

[18] *See* Public Safety NPRM at 88; PSWAC Final Report at 382-411 (stating that the nine categories that require interoperability include: Federal Government, general government, criminal justice, fire and EMS, forestry-conservation, highway, Intelligent Transportation Systems (ITS), mass transportation, and public services).

amending Section 337 of the Communications Act.[19]" The FLEWUG does not share this concern. The FLEWUG believes that it is not the intent of Congress to preclude federal use of the 746-806 MHz band when such use is in support of executing public safety services that are the responsibility of federal agencies.[20]

35. The FLEWUG agrees with the FCC and other commenters that the interoperability channels should be made available to federal public safety service providers. The FCC seeks comment regarding how the channels can be made available to federal users and as a result, what, if any, revisions to the Table of Allocations would be required. There is precedent through current processes (e.g., S160 applications[21]) to allow federal use of state and local frequency allocations. The S160 process provides a mechanism for limited federal user access to spectrum assigned to state and local entities. The FLEWUG believes that the rules and restrictions associated with the S160 process are too limiting to allow effective, shared use of the spectrum. For example, federal users with authorization to operate on a state or local radio system cannot communicate directly with other federal users even if mutual aid response efforts merit and necessitate such communications. In many cases, the federal user communications must be relayed via a dispatcher. This arrangement does not promote spectrum efficiency, adequate sharing of system resources, or seamless interoperability. Most of all, it frustrates effective public safety response and can jeopardize the life, safety, and property of citizens.

36. The FLEWUG, therefore, advocates the direct licensing of interoperability channels at all levels of public safety (federal, state, and local). The Table of Allocations should be updated accordingly. For example, the Interoperability spectrum could be represented in the Table of Allocations using an Activity Code of "Government/Non-Government Shared" with a newly created Allocation Usage category of "Land Mobile Radio Interoperability" and a Radio Service indication of "Land Mobile." In addition, the S160 process should be recast to be more responsive to the interoperability needs of federal, state, and local public safety agencies. Furthermore, NTIA regulations and other pertinent rules that address and allow for state and local use of federal frequencies should be similarly reviewed and modified in an effort to create a reciprocal set of rules.

11. Trunking on Interoperability Spectrum

37. In paragraph 96, the FCC requests comments on the tentative conclusion that trunking and technical standards for the interoperability spectrum should be set by the FCC at the national level. To the extent that trunking is permitted in the interoperability spectrum, the FLEWUG believes that trunking standards for interoperability should be

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[19] 47 U.S.C. § 337.

[20] See paragraph 36 of these comments where the FLEWUG advocates licensing of interoperability spectrum from the 746-806 MHz band to federal, state, and local public safety agencies. Despite the definition stated in the Balanced Budget Act, the FLEWUG believes that the ability of federal agencies to license frequencies in the interoperability spectrum is essential for intergovernmental interoperability.

[21] The S160 is a special record note applied to the Federal Government frequency assignment that applies the conditions under which the Federal Government may obtain authorization to use a non-Federal Government frequency.

established. However, the FLEWUG disagrees with the underlying premise that trunking should be implemented on the interoperability spectrum for nationwide use. The purpose of the interoperability spectrum is to give public safety agencies a designated frequency where they can all communicate with each other without limiting them to trunking technology.

38. The FLEWUG sees the interoperability spectrum as a frequency range with baseline technological requirements where all public safety agencies can communicate with each other irrespective of their technological capabilities. Trunking on the interoperability spectrum would not facilitate interoperability because not all public safety agencies use trunking technology. There are many areas of the country where conventional systems meet spectrum needs, and the deploying of trunked systems would not be an efficient use of resources. With the increased costs associated with trunking in an era of scarce funds for public safety communications, requiring all public safety agencies to invest in trunking equipment for a small slice of spectrum would unnecessarily burden already stretched public safety budgets.

39. Even where trunked systems are deployed, there would be difficulties associated with trunking in the interoperability spectrum. Trunking in the interoperability spectrum would necessitate the creation of a nationwide unit identification management system. Such a requirement could unnecessarily complicate communications and prove to be cost prohibitive, thereby defeating the goal of cost-effective interoperability. Federal units seeking to interoperate with state and local agencies would be required to conduct pre-event coordination to ensure that local trunked systems recognized the federal ID as a valid system participant. While ensuring ID recognition of federal participants is possible in pre-planned task force operations, emergency employment of the interoperability channels would not afford prior coordination and could thus preclude federal use under emergency conditions.

12. Technical Standards for Interoperability Spectrum

40. The formidable challenges in creating and adopting technical standards are discussed in paragraphs 104 through 106 of the NPRM. The FCC seeks comments on how technical standards should be developed for the interoperability channels. The issue of standards in a rapidly evolving technical field is of extreme importance. For a long period in the history of land mobile radio, analog FM dominated the landscape. Interoperability standards were not a major consideration or issue. In recent years, however, technologies exploiting digital concepts have created complex standards issues and needs. As some technologies possess technical lives as short as eighteen months, the traditional standards forming mechanisms must change to keep pace.

41. The FCC's preference to rely on equipment manufacturers to develop standards through such entities as the Telecommunications Industry Association is shared by the FLEWUG. We see a need to alter the process to accommodate rapidly evolving technology. We support further development of standards in the manner of TIA-102, and we also support consideration of the Trans-European Trunked Radio (TETRA) standard.

42. In the FLEWUG's view, the standards development option that has the greatest likelihood of success is an open standard, created by an American National Standards Institute (ANSI) accredited entity. It should include industry involvement, the ability to operate on a fast track through the appropriate use of resources including academia, national laboratories, and federal funds. Such standards should be nationally mandated for the public safety spectrum in order to fulfill the interoperability goals and to aggregate the buying power of the public safety sector, thereby encouraging competition in the marketplace.

B. GENERAL SERVICE RULES

1. Regional Planning Committees

43. The FLEWUG applauds the Commission's idea of actively involving public safety agencies nationwide to design a planning and management scheme to regulate the assignment of the general use spectrum. The FLEWUG also supports the Commission's objective of maximizing spectrum efficiency while allowing sufficient flexibility in system design to accommodate the wide variety of communications requirements in different areas of the nation as stated in paragraph 111. In support of this objective, it is our belief that the regional planning process, as established by the national plan developed under the NPSPAC process, must be modified to provide a more effective and efficient means of assigning and regulating the general use spectrum as well as the existing NPSPAC channels. The FLEWUG provides several suggested modifications to the process in the following paragraphs.

44. A stringent schedule should be proposed for the development and the associated approvals of the revised regional plans. The regional planning process as proposed within the NPSPAC national plan lasted over five years. However, most regional committees required less than a few months to develop and submit their regional plans. Others waited five years and submitted their plans as a defense mechanism to maintain the spectrum. By expediting the process, spectrum requirements can be more quickly addressed and any remaining available spectrum can be readily assigned to frequency deficient public safety agencies.

45. Secondly, the FLEWUG suggests that federal agencies be allowed to participate in the regional planning committees so that the possibility of shared system use can be explored during the regional plan development phase of the process. By allowing federal agencies to explore this possibility at the onset of the development process, it is the hope of the FLEWUG to promote shared system use among federal, state, and local public safety agencies and to streamline those existing processes that allow for federal use of state and local frequencies.

46. The FLEWUG believes that current regional boundaries should be maintained unless the regional committees propose an agreeable alternative for modifications to these boundaries. The FLEWUG supports the Commission's belief that retaining

members from the present regional committees would provide the benefits of continuity and would maintain the expertise gained over the past several years. However, many small public safety agencies are not represented in the regional planning process and often the committees are dominated by law enforcement. Therefore, the FLEWUG recommends that the regional committee membership be adjusted to include not only members of federal public safety agencies operating in the region but also small[22] local public safety agencies. Similarly, the regional committee membership should be augmented to include representatives of under-represented public safety disciplines, such as fire departments and emergency medical personnel.

47. Many public safety agencies, especially small sized agencies, were unable to participate in this process due to a lack of funding. It is our opinion that in order to adequately address the needs of the public safety community, it is imperative to consider the requirements of the diverse array of public safety agencies, including the numerous smaller public safety agencies that service the citizens of the nation. Therefore, the FLEWUG recommends that some source of local, state, regional, and/or federal funding be provided to these qualified agencies so that they may participate in the regional planning process.

48. The FLEWUG disagrees with the Commission's idea of allowing and/or requiring regional planning committees to incorporate the 746-806 MHz band into their existing regional plans. We understand the Commission's desire to expedite the regional plan development process in order to lessen the burden on regional planning committees. However, the FLEWUG believes that expediting the process to this degree will have an adverse effect on the frequency assignment process. We believe this planning and management philosophy will favor certain entities within the regions, enabling them to more adroitly apply for and obtain frequency assignments that may be better used in meeting the pressing frequency deficit needs of agencies not currently involved in the regional planning process. Thus, in order to emphasize the importance of this frequency assignment process, and to prevent any undue diminishing or abuse of the process, the FLEWUG recommends new regional plans be developed by the regional committees with membership adjusted per paragraph 46 of these comments, that specifically deal with the use of the 746-806 MHz band. We feel this management philosophy will help achieve the Commission's primary goal of promoting the efficient and equitable use of spectrum.

49. In response to the Commission's request for comments concerning the regional plan submittal and approval processes as stated in NPRM paragraphs 116-119, the FLEWUG suggests a planning and management process similar but not identical to that we propose for the interoperability spectrum. We believe that a national general use coordination body should be designated as the overall governor of the regional planning process. This body would consist of representatives from the Commission and select members from all levels of the public safety community. The duties of this body would include those duties currently carried out by the Commission as well as the development of a new national plan that would provide guidelines with regard to the development of

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[22] *The vast majority of public safety agencies nationwide consist of 25 members or less.*

the new regional plans. This body would be given the authority to review regional plans and to reject the plans based on the criteria provided in the new national plan or to accept the regional plan and submit it for approval by the Commission. By creating such an active national general use coordination body dedicated to achieving the goals provided by the Commission, the FLEWUG believes that some of the limitations of the errant regional planning process can be rectified.

50. Due to the number of regional committees and the potentially heavy workload of the proposed national general use coordination body, the FLEWUG recommends the creation of six to eight "super-regions" to aid this body with its oversight and management functions. Each of these "super-regions" would consist of seven to ten adjacent NPSPAC regions with no state divided between "super-regions." "Super-region" coordination committees would be established as a part of the national general use coordination body. The membership of these committees would include the regional chairpersons and selected representatives of the regional committees that are a part of the "super-region." The duties of the super-region coordination committee would be to settle inter-regional disputes, identify sources of funding for use by public safety agencies that lack funding to participate in the process, provide frequent guidance to regional committees in the development of regional plans, review completed regional plans, and submit completed regional plans to the national general use coordination body for review and approval. The purpose of these larger regional committees would be to support the regional plan developmental process in a timely and efficient manner. By developing such a hierarchical process, the FLEWUG believes that a better and more timely aid will be provided to regional committees in the development of their regional plans than has been provided previously.

51. The FLEWUG believes that the national interoperability coordination body described previously and the national general use coordination body described in the above paragraph should coordinate and integrate their respective efforts with each other. Such coordination and integration is necessary to ensure that interoperability plans and general use plans are mutually supportive and consistent. The two bodies should establish a standing working group that meets regularly to ensure adequate coordination and integration.

2. Eligibility and Licensing of General Use Channels

52. The Commission tentatively concluded and the FLEWUG agrees that the licensing eligibility for the channels not identified for interoperability in the 746-806 MHz band should be limited to non-federal public safety entities. However, the FLEWUG supports provisions that would allow federal users to utilize these channels in a partnership or shared system environment with state and local public safety agencies. For example, consider a metropolitan area containing local, state, and federal public safety entities that is installing a new 800 MHz radio system. With the availability of the 746-806 MHz band, the metro area now has sufficient spectrum, but funding for the system infrastructure may be incomplete. By allowing a federal partnership on the system (i.e., by allowing federal use of the spectrum) several benefits could be realized.

The federal partner is a potential provider of resources (e.g., infrastructure or end-user equipment for part of the system) that would enhance interoperability among the system partners.

53. In paragraph 120, the FCC alludes to its definition of public safety service provider as derived from Section 337 (f)(1) of the Communications Act[23]. As stated in previous comments, the FLEWUG disagrees with the Commission's limited definition of public safety service provider. The FLEWUG believes that the definition of public safety services (excluding federal public safety entities) in the statute was purposely limited to address the eligibility for licensing and assignment of spectrum between 746 and 806 MHz only.[24] The FLEWUG believes that the definition as provided in statute was not intended as the basis for an overly limited definition of public safety service providers. It is important to note and reaffirm that federal public safety entities are integral members of the public safety community and that the definition of public safety services (including federal public safety entities) remains as stated in the PSWAC Final Report. The FLEWUG fully endorses and urges the FCC to adopt the PSWAC definition of public safety services and to base any broad definition of public safety service provider on the PSWAC definition.

54. In paragraphs 121 and 122 of the NPRM, the FCC requests comments regarding which government and non-government entities should be assigned channels and what entity should provide oversight for the channel assignment process. The FCC tentatively concluded that regional planning committees are in the best position to determine which services and entities are of the greatest importance to public safety in their respective regions. The FLEWUG agrees in principle with the FCC conclusion, with the provision that requisite changes to the regional planning committees are implemented. These changes are described in preceding paragraphs of these comments. In light of the FLEWUG's support for the continuation of the regional planning committees, the FLEWUG believes that the FCC does not need to prescribe rules or guidelines for determining if a service meets the definition of a public safety service.

55. In addition to regional planning committee changes suggested above, the FLEWUG suggests the creation of a hierarchical review mechanism regulated by the FCC. The 55 regions designated in the NPSPAC process would submit preliminary regional plans to super-region coordination committees for review. These committees are elements of the broader national general use coordination body. Following a review and comment period, the plans would then be submitted to the national general use coordination body and, upon approval, to the FCC for final reporting.

56. The FCC also tentatively concluded that their [the FCC] review and subsequent public comment will sufficiently ensure the adoption of fair and reasonable channel

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[23] 47 U.S.C. § 337(f)(1), as amended by the Balanced Budget Act of 1997, § 3004.

[24] See paragraph 36 of these comments where the FLEWUG advocates licensing of interoperability spectrum from the 746-806 MHz band to federal, state, and local public safety agencies. Despite the definition stated in the Balanced Budget Act, the FLEWUG believes that the ability of federal agencies to license frequencies in the interoperability spectrum is essential for integrated interoperability.

assignments. The FLEWUG agrees that the review of the regional plans is within the purview of the FCC or a body that is chaired or sponsored by the FCC (e.g., the national general use coordination body described above).

3. Provision and Use of Public Safety Channels

57. The FCC solicits comments on the approach taken in 1987 regarding the management and planning of the 821-824 / 866-869 MHz band and whether the same approach should be taken with the new spectrum under consideration. The Commission developed service rules for the 821-824 / 866-869 MHz band, such as: (1) the spacing for channels; (2) the total number of channels assigned; and (3) how the channels were to be used. Other issues such as which applicants obtained authorizations, the location of base stations, and other technical parameters were left to the decision of individual regions.[25] The FLEWUG does not object to the continuation of this division of responsibility with the allocation of the 746-806 MHz frequencies. However, the FLEWUG feels that a stronger national integrator and auditor role be played by an objective party to ensure region-to-region compatibility, and to verify process equity within a region. This party should be the national general use coordination body previously suggested in our comments.

4. Types of Communication

58. In paragraph 130, the Commission seeks comment regarding what types of public safety communications should be reserved for the new band. Past trends in public safety communications demonstrate the need for use of advanced technologies to serve the public safety community. Agencies are now using advanced technologies in voice, data, image/high speed data (image/HSD), and video communications that improve the effectiveness and efficiency of radio communications. The FLEWUG believes that in order to promote continued use of advanced technologies, the spectrum must accommodate each type of communications used by the public safety community (i.e., voice, data, image/high speed data, and video). Therefore, the FLEWUG proposes that the general use spectrum be made available for all four general types of public safety communications.

5. Channel Spacing and Channel Requirements

59. In paragraphs 132-152, the FCC addresses the issues of channel spacing and channel requirements. The FLEWUG supports the use of regional planning committees to decide upon channel spacing regulations and channel requirements. Allowing the regional planning committees to make these decisions will allow for greater flexibility in the use of these channels. However, the FLEWUG feels that a stronger national integrator and auditor role be played by an objective party to ensure region-to-region compatibility, and to verify process equity within a region. This party should be the national general use coordination body previously suggested in our comments.

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[25] Public Safety NPRM at 58.

6. Transmission Technology

60. The FLEWUG agrees that there is merit in permitting the public safety community to select the equipment and technology that provides the features they desire in the same manner that current commercial licensees select the type of technology that meets their needs, whether it is analog or digital. This would facilitate the development of a series of best practices which could be exported to other agencies. Thus, the FLEWUG advocates that the FCC should not mandate a transmission technology to be used on general use spectrum. Rather, the FLEWUG supports the regional planning committees, in conjunction with the national general use coordination body, determining these issues to accommodate local transmission needs.

61. The FCC, in paragraph 155 of the NPRM, seeks comments regarding trunking standards on interoperability channels and the possible effect of standards on the availability of new technologies for use on the general use spectrum. As stated in paragraph 37 of these comments, the FLEWUG does not support trunking on interoperability channels because of the increased cost and technological challenges posed by trunking. However, for the general use spectrum, the FLEWUG considers that the establishment of trunking standards should be a national initiative to ensure nationwide uniformity in public safety communications. Our experience indicates that supporting uniform standards for communications, established at the national level, is not viewed as an undesired intrusion by the federal government. This is particularly true if state and local participation in the standards identification process is encouraged.

62. The vast majority of large public safety agencies or regional public safety and public service organizations have multiple frequencies licensed to them. Due to an increasing demand for spectrum among public safety agencies, there are increasing pressures to share spectrum with other public safety agencies. Trunking techniques minimize the demand for additional spectrum and efficiently place many users on a few paths.

63. The FLEWUG believes that the establishment of trunking standards would further the objective of making efficient use of the general use spectrum. We also recommend consideration of hybrid conventional/trunked architectures where appropriate. Hybrid systems would further facilitate the development and use of shared systems. They would promote spectrum efficiency in the trunked mode and, at the same time, facilitate operation in the conventional mode on an as-required basis.

7. Equipment Standards

64. Paragraphs 156 and 157 invite comment on the issue of receiver standards on the non-interoperability public safety channels. On this issue, we disagree with the FCC's position, which states that there is no need to mandate receiver standards on these channels. As with interoperability channels, receiver performance standards for non-interoperability channels should be mandatory. These standards should be determined by a date certain to provide some level of consistency. To ensure the quality of public safety